



# USSTRATCOM MODELING & SIMULATION OVERVIEW

Eighth Annual State of Modeling & Simulation  
Briefing to Government and Industry

UNCLASSIFIED



# AGENDA

- USSTRATCOM mission and roles
- M&S Components
- M&S Current Technologies
- M&S Future Directions

# THE MISSION OF STRATEGIC COMMAND

**Deter major military attack on the  
United States and its allies; and if  
deterrence fails, employ forces**

# UNITED STATES STRATEGIC COMMAND

## A War Preventer

- Deter major military attack, and if deterrence fails, employ forces

## A Planner

- Integrate strategic deterrence policies and requirements, thereby linking planning and execution. Provide planning support to regional CINCs

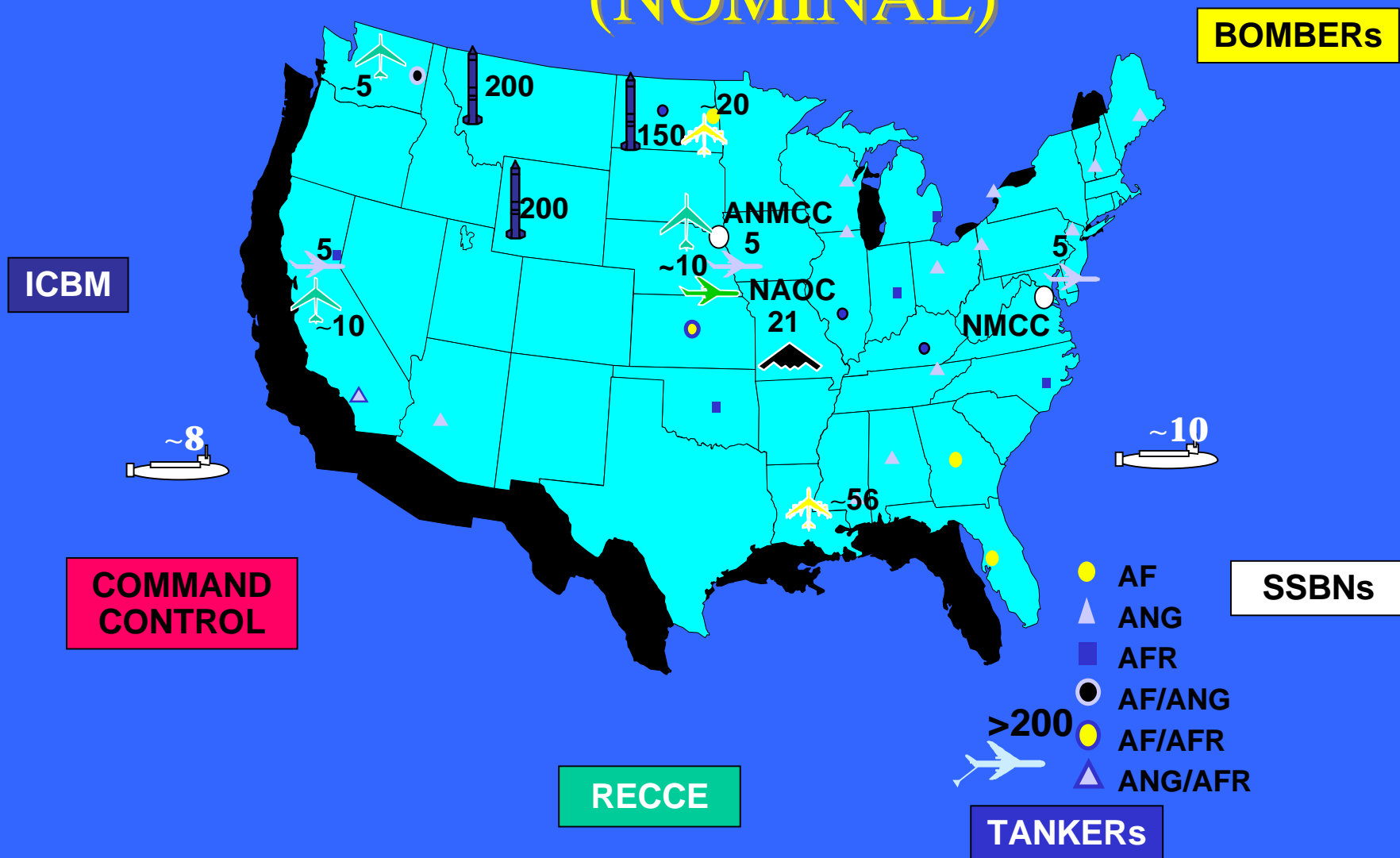
## An Advocate

- Primary voice for strategic force structure, modernization, and arms control implications



# COMMAND RELATIONSHIPS WARTIME FORCES









# POST COLD WAR CHALLENGES

Turmoil in FSU

Arms Control



Strategic Deterrence

WMD Counter Proliferation

Nuclear Stockpile  
Stewardship

Strategic Force  
Modernization

Hard and Deeply Buried  
Target Proliferation



# U. S. STRATEGIC COMMAND M & S MAJOR COMPONENTS



**Strategic  
Systems**

**WMD /  
Counterproliferation**

**Consequences  
of Execution**







# CURRENT TECHNOLOGIES

*For Distributed Collaborative Planning/Analysis (DCP/A):*

- Theater Integrated Planning System (TIPS)
- Common Operational Modeling, Planning, and Simulation Strategy (COMPASS)
- Collaborative Contingency Targeting (CCT)





# CURRENT TECHNOLOGIES

(CONT)

*For Counterproliferation/Proliferation Path/Nodal Analysis:*

- Counterproliferation Analysis and Planning System (CAPS)



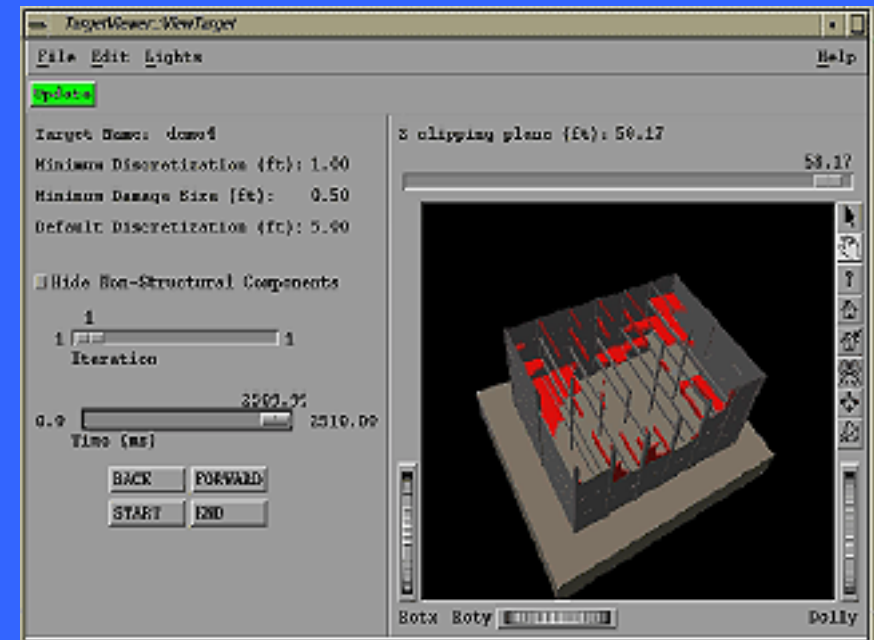


# CURRENT TECHNOLOGIES

(CONT)

*For weapon lethality/target vulnerability analysis:*

- Air Force Research Lab's Modular Effectiveness Vulnerability Assessment (MEVA) - a deliberate planning tool
- Defense Threat Reduction Agency's Munitions Effects Assessment (MEA) - a crisis action planning tool
- Probability of Damage Calculator (PDCALC)



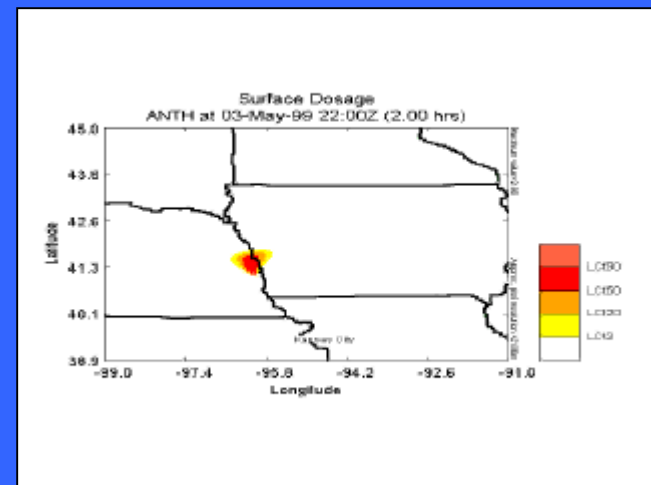


# CURRENT TECHNOLOGIES

(CONT)

## *For Consequence Analysis:*

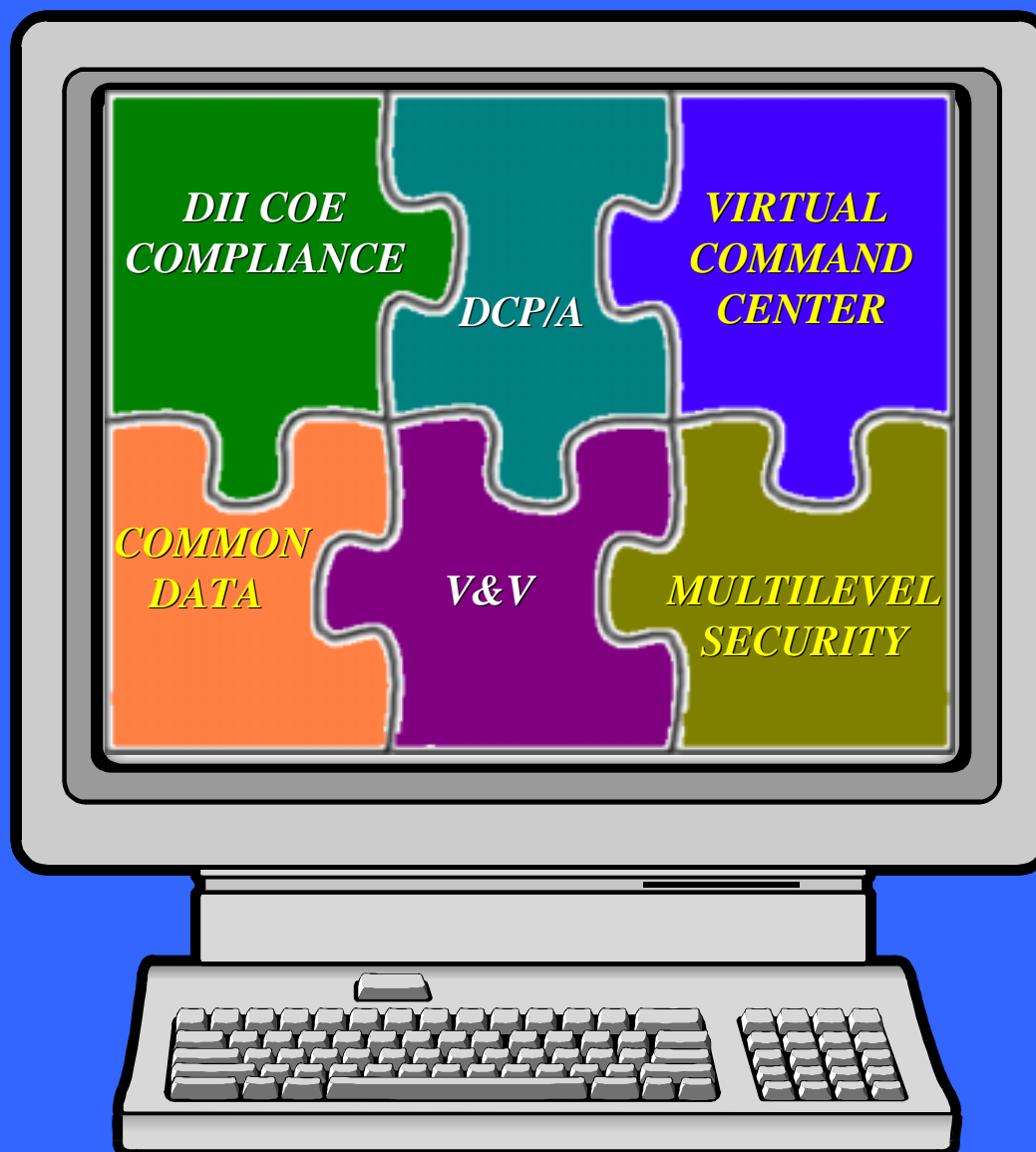
- Hazard Prediction Assessment Capability & Fallout Assessment System/Civilian Vulnerability Indicator Code (HPAC & FAS/CIVIC)
  - Nuclear & conventional weapons on NBC facilities
  - Atmospheric transport and dispersion
  - Casualty prediction



Anthrax Dispersion in HPAC



# MISSION ENVIRONMENT





# FUTURE DIRECTIONS

## *Increased fidelity in modeling:*

- Atmospheric transport & dispersion
  - More accurate incorporation of meteorology
- Relocatable targets
- Underground targets in hardened geologies
- Population distribution

## *New Areas:*

- Strategic Exercise Simulation
- Information operations analysis
- Atmospheric transport and dispersion in urban terrain
- Secondary Nuclear Effects



